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On Fiscal Year 2023 Strategic Forces Posture:
Nuclear, Missile Defense, Space, and Hypersonic Strike
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Introduction

Chairman Cooper, Ranking Member Lamborn, and distinguished Members of the Committee, thank you for inviting me to testify before you on the Department's nuclear, missile defense, space, and hypersonic strategy, posture, and capabilities. I am honored to appear alongside Admiral Richard, General Dickinson, and General VanHerck, and I look forward to answering your questions.

Today, the United States faces a challenging security environment amid intensifying strategic competition, rapidly evolving domains of conflict, novel and shifting military capabilities and balances of power, and the growing assertiveness of our competitors, accompanied by a growing risk of military confrontation. Deterrence is challenged by competitors' "gray zone" operations below the threshold of armed conflict, combined with increasingly complex escalation dynamics across multiple domains, as well as the development of new weapons systems, all of which erode strategic stability. Our competitors are developing capabilities to exploit U.S. reliance on space-based systems and challenge the United States' position in the space domain, and are intent on creating new global space norms suited to their purposes. Through the use of space and counterspace capabilities, they aspire to undercut U.S. global leadership.

Our competitors aim to create a future contested operating environment designed to deny our freedom to maneuver by holding our forces, ports, and airfields at risk and challenging our existing weapon capabilities. We must diligently calibrate our strategic posture -- which is underwritten by our nuclear, missile defense, space, and hypersonic strike capabilities -- to these developments.

The forthcoming 2022 National Defense Strategy (NDS) will detail the Department's strategic approach for advancing our defense priorities in support of the National Security Strategy. At the core of the NDS lies the concept of integrated deterrence, which provides a framework for working seamlessly to strengthen deterrence across warfighting domains, theaters, and the spectrum of conflict, in close collaboration with other instruments of U.S. national power, allies, and partners. This is backstopped by our nuclear deterrent, which is underwritten by a safe, secure, effective modernized triad. In keeping with this approach, the 2022 Nuclear Posture Review (NPR) and 2022 Missile Defense Review (MDR) are nested with the NDS, and both the NPR and MDR processes were tightly integrated into the development of the NDS, with a shared understanding of the security environment and Departmental priorities. The Department recognizes that we face an urgent imperative to sustain and strengthen U.S. deterrence, and we must bring all available tools of national power to bear in doing so. Applying integrated

deterrence, and appropriately tailoring our nuclear, missile defense, space, and hypersonic postures, will be instrumental in advancing this goal.

Security Environment

Potential U.S. adversaries are modernizing, diversifying, and expanding their strategic weapons capabilities, and as they do so, the risks associated with military confrontation are growing. Under these conditions, there must be a sense of urgency in our efforts to sustain and strengthen U.S. deterrence.

As Secretary Austin has stated, the People's Republic of China (PRC) is the Department's pacing challenge. The PRC's ongoing ambitious expansion of its nuclear forces is a growing factor in how we assess our nuclear posture. As recently as 2020, DoD assessed that the PRC would at least double the size of its nuclear stockpile, then estimated in the low-200s, within the decade. Since then, the PRC has accelerated this growth, and may possess up to 700 deliverable nuclear warheads by 2027, and likely intends to have at least 1,000 warheads by 2030. The Chinese military is implementing a launch-on-warning posture for its nuclear forces with multiple manned command and control organs that, for the first time, will enable a counterstrike by the PRC before an incoming first strike can detonate. The PRC has commenced building at least three solid-fueled intercontinental ballistic missile (ICBM) silo fields, which will cumulatively contain hundreds of new ICBM silos. Such developments mark a departure from the PRC's previous minimum deterrence posture for its nuclear forces, and although the end state of the PRC's nuclear expansion is not certain, the trajectory of these efforts points to an extensive nuclear arsenal with a high degree of survivability, reliability, and effectiveness. While the PRC continues to declare that it will not use nuclear weapons first in a crisis or conflict, these expanded forces may provide the PRC with additional options for nuclear coercion. Additionally, the Department remains concerned about the PRC's development of conventional ballistic and hypersonic missile capabilities, in some aspects of which it has surpassed the United States.

The PRC will also remain our primary long-term competitor in space, seeking to exploit U.S. reliance on space-based systems and challenge the United States' position in the space domain. The PRC has developed, tested, and deployed an increasingly diverse array of counterspace weapons to hold U.S. space assets at risk, as well as those of our partners and allies. The PRC is developing new space systems to improve its military effectiveness and reduce its reliance on U.S. space systems such as Global Positioning System (GPS). The PRC has also created a separate space force and is integrating space scenarios into its military exercises. The PRC is working to meet or exceed U.S. space capabilities in pursuit of its goal of building a world-class military by the end of 2049. These efforts involve devoting significant economic and political resources to strengthen science and technology sectors to rapidly advance space and counterspace programs. They also include acquisition and development of a range of emerging technologies with application to the space domain, including artificial intelligence, autonomous

systems, advanced computing, quantum information sciences, robotics, advanced materials and manufacturing, and space-based solar power.

Russia conducted its annual Strategic Forces nuclear exercise earlier this month coinciding with its final preparations for its premeditated, unprovoked, and unjustified attack operations against Ukraine. The exercise culminated with live fire missile tests overseen by President Putin and Belarusian President Lukashenko on February 19 —an effort to brandish nuclear weapons to intimidate the United States and NATO. Let me be clear: we are not intimidated. Neither the United States nor NATO has any desire or intention for conflict with Russia. But our commitment to Article 5 remains ironclad, and we will continue to work with our allies to strengthen our nuclear deterrence posture in Europe. We are confident in U.S. strategic posture to defend the U.S homeland and deter attacks against our allies and partners.

Russia's modernization of its nuclear, missile, space, and hypersonic capabilities, coupled with its highly aggressive military behavior witnessed in its attack against Ukraine, pose a distinct and pressing challenge. Russia will remain the largest and most capable weapons of mass destruction (WMD) challenge to the United States for the foreseeable future and is currently increasing the capabilities of both its strategic and nonstrategic nuclear weapons. Russia believes its nonstrategic nuclear weapons offer options to deter adversaries, control escalation, and counter U.S., allied, and partner forces that would challenge any regional Russian aggression. These systems pose a direct threat to our allies and partners, and their numbers and stationing are currently not limited by any U.S.-Russia arms control treaty. Russia is also developing and fielding a suite of advanced precision strike missiles that could be launched from multiple air-, sea-, and ground-based platforms, and feature many capabilities designed to defeat multiple missile defenses.

Russia will remain a key U.S. competitor in the space domain, and like the PRC, seeks to undermine the U.S. position in space and exploit our space-based systems. Russia will likely continue to integrate space services into its military forces and develop, test, and field new space- and ground-based kinetic and non-kinetic counterspace capabilities to target U.S. and allied and partner satellites. For example, in November 2021 Russia tested a direct-ascent anti-satellite missile that destroyed a defunct Russian satellite. This test generated more than 1,500 pieces of trackable orbital debris and likely generated hundreds of thousands of pieces of smaller orbital debris that cannot be tracked but nonetheless pose a threat to space assets and operations. This deliberate and irresponsible act demonstrated Russia's disregard for the security, safety, stability, and long-term sustainability of the space domain for all nations and highlights that Russia continues to develop counterspace weapons that undermine strategic stability.

The Democratic People's Republic of Korea (DPRK) remains a persistent threat, and has continued developing nuclear weapons and associated delivery systems that threaten U.S. allies and partners, and pose an increasing risk to the U.S. homeland and U.S. forces in theater. In 2017, the DPRK flight-tested two different types of road-mobile ICBMs, both of which can reach the U.S. homeland. In 2020, the DPRK displayed a new, larger ICBM during a military parade; however, this system is yet to be flight-tested. Additionally, since September 2021, the DPRK has conducted three flight tests of what it claims are hypersonic missiles.

Meanwhile, Iran's pursuit of nuclear activities that were previously constrained by the Joint Comprehensive Plan of Action (JCPOA) continues to be of deep concern. Iran also maintains a large and growing regional missile capability. Its proliferation of missiles and uncrewed aerial systems pose a coercive threat to U.S. forces, allies, and partners in the Middle East and beyond, although they cannot currently reach the U.S. homeland. Iran also continues to pursue a space program, which could shorten the pathway to a long-range missile capability.

Non-state actors, including violent extremist organizations (VEOs), pose an increasing threat to U.S. regional interests, including allies and partners, particularly in Africa and the Middle East. Non-state actors, especially those supported by Iran, are fielding increasingly complex offensive uncrewed aircraft systems (UAS), rocket, and missile capabilities and continue to benefit from technology transfer by U.S. competitors. Global terrorist groups – including Al Qaeda, ISIS, and their affiliates – are degraded but some may be able to reconstitute in short order. Over the longer term, the United States and allies and partners are likely to face emerging VEOs seeking to exploit domestic extremist sentiments.

Nuclear

The Department of Defense continues to prioritize nuclear deterrence as a no-fail mission. Our nuclear posture has served a vital purpose in U.S. national security for more than 70 years, and continues to be the backbone of our strategy to preserve peace and stability by deterring aggression against the United States, our allies, and our partners. Our potential adversaries must understand that they may never employ nuclear weapons against the United States, our allies, or our partners under any circumstances, without risking devastating consequences. For as long as nuclear weapons exist, we will continue to maintain a safe, secure, and effective nuclear deterrent that is tailored to the challenges of the security environment, the threats we face, and our extended deterrence commitments. At the same time, the Department will support the President's goal of renewing our emphasis on arms control and risk reduction in order to strengthen strategic stability, avoid costly arms races, and reduce the risks of nuclear war. Taken together, these objectives reflect a balanced approach that views a safe, secure, and effective deterrent and the pursuit of arms control and risk reduction as complementary, mutually reinforcing components of U.S. nuclear policy.

This year, DoD will release the 2022 Nuclear Posture Review, which is nested alongside the 2022 Missile Defense Review under the 2022 National Defense Strategy, in keeping with the Department's integrated deterrence framework. While integrated deterrence offers opportunities to draw on emerging non-nuclear capabilities to achieve deterrence objectives and manage escalation risk, nuclear weapons will continue to provide unique deterrence effects that cannot be replaced by other elements of U.S. military power. Nuclear weapons are foundational to U.S. alliances and extended deterrence arrangements, which in turn are central to our broader defense strategy and nonproliferation strategy. As such, U.S. nuclear forces will continue to serve a vital role in our national security strategy.

The Department is in the final stages of conducting the 2022 NPR, pursuant to Presidential guidance issued in July 2021. The NPR process has been an inclusive effort involving a large group of stakeholders, and the review has taken a deliberate and rigorous approach to ensure fully informed senior leader decision-making.

The NPR was structured in three phases, which began with a review of the security environment. This phase featured extensive examination of the capabilities and intent of U.S. competitors. These examinations directly informed the second phase, which assessed the roles of nuclear weapons, strategies for deterring adversaries, maintaining robust extended deterrence and assurance for U.S. allies and partners, and potential arms control and risk reduction strategies. The third phase focused on requirements and capabilities, including the nuclear forces, stockpile, and infrastructure required to support different policy and strategy options.

The NPR working group remained closely connected to the NDS development process, and the strategy and policy options it considered are aligned with the Department's integrated deterrence framework. NPR deliberations have also been closely integrated with DoD programmatic and budgetary processes. In particular, examination of some NPR topics was deliberately synchronized with the formulation of the President's forthcoming budget request for Fiscal Year (FY) 2023.

As directed by the President, and consistent with the 2021 Interim National Security Strategic Guidance, the NPR has examined opportunities to take steps to reduce the role of nuclear weapons while maintaining a safe, secure, and effective nuclear deterrent and upholding our extended deterrence commitments to our allies and partners. We will continue to examine opportunities to reduce our reliance on nuclear weapons, with analysis of new and emerging domains and technical capabilities. DoD, in partnership with other departments and agencies, will also support bilateral and multilateral nuclear arms control and risk reduction initiatives, with particular focus on addressing the PRC's nuclear weapons buildup, as well as Russian nonstrategic nuclear weapons.

In order to maintain a safe, secure, and effective nuclear deterrent in the face of evolving threats, we must continue to sustain and modernize U.S. nuclear capabilities. The President's FY 2022 budget request reflects a disciplined approach to nuclear modernization programs of record, covering all three legs of the triad. In addition, this request supports the long-overdue modernization of the U.S. nuclear command, control, and communications system, and its transition to an architecture that is suited for today's threat environment.

The President's upcoming FY 2023 budget request, which will be aligned with the 2022 NPR, will continue to address enduring efforts to sustain and modernize the nuclear triad. The Department's modernization efforts also rely on the important partnership with the Department of Energy/National Nuclear Security Administration (DOE/NNSA). DOE/NNSA programs, including stockpile and infrastructure modernization programs, are paramount to the DoD's ability to ensure a safe, secure, and effective nuclear deterrent that can continue to be certified without nuclear testing.

Secretary Austin has stated that U.S. alliances and partnerships are vital to our national security, serving as "force multipliers" for our military, and he has testified that one of our nation's greatest strengths lies in these relationships. U.S. extended nuclear deterrence remains a critical element of our alliances and partnerships. Nuclear deterrence has resided at the core of the NATO Alliance since its establishment in 1949, and as the North Atlantic Council reaffirmed in December 2020, as long as nuclear weapons exist, NATO will remain a nuclear alliance. For more than sixty years, through the 1958 U.S.-UK Mutual Defense Agreement, the United States has supported the United Kingdom's independent continuous-at-sea deterrent. Our extended deterrence relationships with the Republic of Korea and Japan are instrumental to deterring threats in East Asia, including those emanating from the DPRK. We will continue to hold extended deterrence dialogues with Japan, the Republic of Korea, Australia, and NATO, and invigorate these vital alliances in support of U.S. national security.

DoD will take a balanced approach to nuclear posture and policy, sustaining a safe, secure, and effective nuclear deterrent while making a concerted effort to reduce nuclear risks. As the Department continues to develop and implement the integrated deterrence concept, nuclear weapons will continue to serve a unique role in our defense strategy, and we will continue to modernize U.S. nuclear forces to address the evolving security environment. The Department is deeply committed to supporting strong and credible U.S. extended nuclear deterrence commitments. At the same time, DoD will support complementary measures, including bilateral and multilateral arms control agreements, to improve strategic stability and minimize the risk of miscalculation leading to the use of a nuclear weapon. Above all, the Department will implement a nuclear posture and policy that will continue to undergird our national security, and global security, freedom, and prosperity.

Missile Defense

Our nation's security interests at home and abroad are increasingly at risk from missile threats ranging from advanced offensive ballistic, cruise, and hypersonic weapons to lower-tier threats such as UAS. These missile-related threats have rapidly expanded in quantity, diversity, and sophistication in recent years and are a key driver for the on-going MDR.

The MDR will provide a framework for U.S. missile defense priorities and deterrence objectives and a strategy for missile defense within integrated deterrence. The MDR will also outline how the United States is integrating missile defense with its allies and partners to strengthen international cooperation against shared threats.

Missile defense capabilities undermine adversary confidence in missile use by introducing doubt and uncertainty into strike planning and execution, reducing the incentive to conduct coercive attacks, denying the probability of attack success, and raising the threshold of conflict. Missile defenses also reinforce U.S. diplomatic and security posture to reassure allies and partners that the United States will not be deterred from fulfilling its global security commitments. In the event of a crisis or conflict, missile defenses provide military options that may be less escalatory

than employing offensive systems. This ability to control the escalation process and limit damage early in a conflict expands senior leader decision space.

While U.S. nuclear weapons continue to present a credible threat of a robust response and cost imposition, missile defenses provide deterrence by denial, and if deterrence fails, potentially limit the destructiveness of an attack. Missile defenses contribute directly to tailored U.S. deterrence strategies to prevent attacks on the United States from states like the DPRK, and extended deterrence to prevent attacks on the U.S. interests and forces abroad, as well as on allies and partners.

The Department's top priority is to defend the homeland and deter attacks against the United States. The United States continues to rely on nuclear deterrence to address nuclear capable threats from Russia and the PRC (e.g., ballistic missiles, maneuvering reentry vehicles, and hypersonic glide vehicles (HGVs)). For states like the DPRK, missile defenses and the U.S. nuclear arsenal are complementary and mutually reinforcing, as these capabilities work together to deter attacks against the United States and our allies and partners. Homeland missile defense systems, such as the Ground-based Midcourse Defense (GMD), offer a visible measure of protection for the U.S. population while reassuring allies and partners that the United States will not be coerced by threats to the homeland from states like the DPRK and potentially Iran.

As DPRK ballistic missiles threats to the U.S. homeland continue to evolve, the Department is committed to improving the capability and reliability of the GMD system. This includes development of the Next Generation Interceptor (NGI) to augment and potentially replace the existing Ground-Based Interceptors (GBIs).

We continue to pursue defenses for U.S. forces with allies and partners against all regional missile threats from any source. As part of an integrated, interoperable, and multi-layered approach to deterrence, U.S., allied, partner, and regional Integrated Air and Missile Defense (IAMD) capabilities are needed to maintain a credible level of defensive capability against expanding regional missile attacks and the threat of attack, while protecting and enabling U.S., allied, and partner maneuver forces to conduct offensive operations. We will also continue the development of active and passive defenses against regional hypersonic missile threats, and pursue a persistent and resilient sensor network to characterize and track all hypersonic threats, improve attribution, and enable engagement.

UAS are a growing challenge as they offer inexpensive, flexible, and plausibly deniable ways for adversaries to carry out tactical-level attacks below the expected threshold of major retaliation, making them an increasingly preferred capability for state and non-state actors alike. The homeland and forward-deployed forces require the fielding of technical and integrated Counter-UAS (C-UAS) solutions with cross-DoD and interagency synchronization to ensure the ability to meet the range of threats to U.S. forces and our partners and appropriately hedge against future advancements.

Working closely with allies and partners in Europe, the Indo-Pacific, the Middle East, and North America to enhance our collective IAMD efforts is an important priority for the Department. From a strategic standpoint, cooperation in this area strengthens our common protection,

enhances deterrence, and provides assurances essential to the cohesion of our alliances and partnerships in the face of growing regional missile threats, coercion, and attacks. Operationally, IAMD-related coordination, including in the crucial areas of sensing and tracking threats, plays an important role in improving interoperability while mitigating adversary missile capabilities.

To pursue these objectives, the Department engages allies and partners in extensive bilateral and multilateral IAMD-focused security cooperation activities that: coordinate policy development and operational planning; conduct missile defense experimentation; share information on regional and global missile threats; exchange operational IAMD visions; strengthen and align information protection efforts; support modernization and future capability development; and advance new opportunities for joint research, training, and collaborative development and production.

As proven capabilities, active and passive missile defenses remain essential elements in the suite of solutions against advanced and changing threats to the United States and its allies and partners. It is a strategic imperative for the United States to continue investment and innovation in the development of the full spectrum of IAMD capabilities in order to maintain deterrence and offer protection while hedging against uncertainty.

Space

The United States Space Priorities Framework, issued in December 2021, underscores the criticality of space activities to our way of life – to our national security, economic prosperity, and scientific achievement. Today, global space activities are rapidly accelerating and the strategic security environment is changing, providing both key opportunities and challenges to U.S. leadership in space and assured use of space in crisis and conflict. The Department of Defense, alongside our allies and partners, is leading the transformation of our space enterprise to ensure a secure, stable, sustainable, and accessible space domain for the benefit of all humanity.

Just as space activities are vital to our way of life, space-based capabilities are an integral component of U.S. military power and are critical to overall military effectiveness across all domains. Our space capabilities provide indications and warnings of emerging threats and attacks; deliver the positioning, navigation, and timing signals that support rapid and precise global power projection; generate intelligence on operationally relevant timelines; and allow national decision makers to anticipate risks, deescalate crises, and simultaneously command and control forces in multiple theaters around the globe.

Ensuring the availability of our space capabilities in the face of mounting threats is fundamental to maintaining military superiority across all domains, as is the availability of capabilities to deny hostile uses of space. Equally, ensuring the Department's ability to deter, and if necessary, defeat hostile actions in space, in an increasingly complex security environment, is integral to deterrence and defeat of aggression in any domain. Failure to deter attacks against our space systems creates deterrence challenges across all domains. As a result, an integrated approach

that harnesses all tools of national power to effectively deter attacks in the space or other domains, is essential.

Equipped with legislation passed over the past few years, the Department of Defense continues to adapt our space enterprise to this evolving security environment. The U.S. Space Force is bringing unity, focus, and advocacy to organizing, training, and equipping U.S. space forces. The U.S. Space Command is providing the operational focus to deter threats and shape the security environment in space. And, the establishment of the Assistant Secretary of Defense for Space Policy will support the Secretary of Defense in overseeing the Department's policy for space warfighting. This office will serve as the overall lead for developing, coordinating, and monitoring the implementation of all defense policy and strategy related to space.

The Department also continues to address the legacy of outmoded space acquisition practices that cannot meet the timelines of the modern strategic environment as we evolve and implement the Adaptive Acquisition Framework with respect to space. This framework provides six management pathways with tailoring options to accelerate delivery of new capabilities to the warfighter, including by leveraging our dynamic and innovative commercial space sector. The incoming Assistant Secretary of the Air Force for Space Acquisition and Integration, on behalf of the Secretary of Air Force, will further unify the Department's space acquisition efforts into a more streamlined structure for better integration and speed of delivery of new capabilities at a lower cost. This new Assistant Secretary will lead the Space Acquisition Council and oversee, direct, and manage the acquisition and integration of programs of the Armed Forces to strengthen integration across the national security space enterprise.

Taken together, these changes in the DoD space enterprise are providing focus that provides the required priority and momentum to address current and future projected threats to our capabilities in space and threats stemming from potential adversaries' increasingly sophisticated uses of space.

The June 2020 Defense Space Strategy and the December 2020 National Space Policy also remain important elements of the policy framework for national security space activities. In this respect, the Department is working along four lines of effort to develop the defense space posture we require in this era of strategic competition:

- First, we are building a comprehensive military advantage in space, especially through the work of the U.S. Space Force.

- Second, we are integrating space into national, joint, and combined operations, notably through integrated planning work between the U.S. Space Command and other Combatant Commands.

- Third, through our operations and ally engagement, we are shaping the strategic environment in ways that enhance domain stability and reduce the potential for miscalculations.

- Fourth, DoD continues to advance space cooperation with commercial entities and with our allies and other international partners, many of whose space capabilities are already integral to collective security.

Just like in other domains, space cooperation with allies and partners provides an important advantage for the United States and contributes to our ability to deter aggression by broadening the systems upon which we rely for space operations and expanding our options for diplomatic and military responses. In concert with the Department of State, with our allies and partners, and our commercial partners, we are shaping the strategic environment in ways that enhance space domain stability, such as through promotion of voluntary norms of responsible behavior in space. Our specific work in the development and sharing of norms of behavior in space, starting with the Department's Tenets of Responsible Behavior in Space, issued by the Secretary of Defense on July 7, 2021, provides a clear and transparent statement on how we will operate in space to promote domain stability and sustainability. Guided by these Tenets, the Department will continue to refine operational practices that exemplify professional and safe behavior in the domain while preserving our ability to defend U.S. national security interests in space. As a military organization and one of the world's most experienced and largest space operators, we understand the importance of articulating what we mean by responsible behavior and then reflecting those values in how we operate. Additionally, our efforts support continued dialogue with space operators around the world to develop shared understanding about responsible space operations in order to reduce the risks of misperception and miscalculation.

The Department will continue to bring to our activities in the space domain a culture of cooperation that allows us to leverage the benefits of alliances and partnerships as part of our collective security, just as we have traditionally done in other domains. We will also continue to pursue opportunities to work with the growing commercial space industry to leverage their entrepreneurial innovation and investments in space as we seek to develop and rapidly field advanced technologies and capabilities to counter threats to U.S., allied, and partner interests.

Hypersonic Strike

The Department continues to modernize the Joint Force to prepare for and deter strategic competitors in a high-end conflict. As part of that effort, hypersonic strike systems are an emerging and critical conventional weapon capability in our broader portfolio of strike options that remains among the highest priorities in the Department's modernization strategy.

The Department continues to prioritize the development of specific capabilities to address and mitigate the PRC's and Russia's aggressive development of hypersonic strike systems. The development of U.S. hypersonic strike weapons systems, all of which are strictly non-nuclear, is one of these priorities. The combination of hypersonic weapon systems' speed, maneuverability, and altitude provides clear and distinct operational advantages.

Hypersonic weapons, such as HGVs, travel at speeds five times faster than the speed of sound, enabling long-range flight at the upper reaches of the atmosphere. Conventional hypersonic

weapon systems will enable us to hold high-value, time-sensitive targets at risk. Additionally, they provide a conventional strike option in situations where other methods are unavailable, denied access, or their employment is not preferred. Simply put, hypersonic weapons allow us the ability to destroy critical enemy infrastructure and anti-access systems anywhere in the world within hours, enhancing the U.S. capability to create strategic effects, without crossing the nuclear threshold.

Conventional hypersonic strike is critical to the modernization of the Joint Force. The Department is working to identify and invest in the optimal mix of high and low-end munitions to ensure we have the right capability mix to deter conflict or achieve our objectives in the event of conflict. Hypersonic weapons also require robust kill chains and command and control networks, as do many other Joint Force capabilities. The Department is pursuing hypersonic strike as part of the broader Joint Force modernization efforts, and informed by the emerging defense strategy and new warfighting concepts.

We are developing hypersonic capabilities across the Department. The Army's Long-Range Hypersonic Weapon (LRHW), the Navy's Conventional Prompt Strike (CPS), and the Air Force's Air Launched Rapid Response Weapon (ARRW) form a family of hypersonic weapons scheduled to deliver in the early to mid-2020s. The Air Force also has a program underway to develop the Hypersonic Air-launched Cruise Missile (HACM). Ultimately, the Joint Force's long-range strike portfolio will provide the ability to deliver hypersonic weapon systems by air, ground, or sea platforms. Geography, as well as strategic and operational demands, call for this cross-Service approach to fielding hypersonic strike. Each weapon system offers unique capabilities, such as survivability, flexibility, and persistence.

The Department's approach enables a flexible and robust suite of strike options, including hypersonic weapon systems, instead of seeking direct parity with adversaries. Congressional concerns that hypersonic strike systems may raise significant strategic stability and policy questions are taken very seriously and weigh heavily in all of our decisions. Unlike the PRC and Russia, the United States is pursuing only non-nuclear hypersonic strike systems. Additionally, the Department is developing the concepts of operations to employ such systems in a manner that addresses and minimizes any such risks. Transparency and dialogue with Congress remain critical to the evolution of this capability.

Conclusion

Mr. Chairman, I will conclude by emphasizing the ever-increasing importance of U.S. strategic capabilities—encompassing our nuclear, missile defense, space, and hypersonic strike systems—in deterring our competitors. Amidst the current security environment and in the face of rapidly evolving technologies, we must remain focused on sustaining and strengthening U.S. deterrence. This means taking a disciplined approach to modernizing our strategic capabilities, with attention to managing escalation risk and increasingly complex deterrence dynamics across domains. The Department will continue to apply and further develop the integrated deterrence framework to directly address these challenges, and will remain ever-vigilant of emerging and future threats. Thank you, and I look forward to your questions.